

## Los Angeles Regional Water Quality Control Board

February 8, 2013

Mr. Ed Morelan  
Environmental Health Supervisor  
Los Angeles Unified School District  
Office of Environmental Health and Safety  
333 South Beaudry Avenue, 28<sup>th</sup> Floor  
Los Angeles, CA 90017

**REVISED MONITORING AND REPORTING PROGRAM NO. CI-9579 – CARSON-GORE ACADEMY OF ENVIRONMENTAL STUDIES (FORMERLY CENTRAL REGION ELEMENTARY SCHOOL #13), 3200 WEST WASHINGTON BOULEVARD, LOS ANGELES, CALIFORNIA (FILE NO. 09-192, ORDER NO. R4-2007-0019, SERIES NO. 119, CI-9579, GLOBAL ID WDR100001770, DTSC SITE CODE 304490)**

Dear Mr. Morelan:

On March 15, 2010, the Los Angeles Unified School District (LAUSD) Central Region Elementary School #13 was provided coverage under General Waste Discharge Requirements (WDR) No. R4-2007-0019 adopted by the Los Angeles Regional Water Quality Control Board (Regional Board) on March 1, 2007. The application of the proprietary mix BIOX<sup>®</sup> as a pilot test for in-situ groundwater remediation was regulated under the WDR and its corresponding Monitoring and Reporting Program (MRP) CI-9579.

On October 14, 2010, Regional Board staff revised MRP CI-9579, authorizing the installation of groundwater monitoring well C13-GW3 as a substitute well for the originally proposed monitoring well C13-GW20A.

On August 5, 2011, Regional Board staff revised MRP CI-9579, authorizing the implementation of a pilot study consisting of injecting ozone within locations identified as “hot spots” in the A-zone groundwater underlying Area B1 of the site. The MRP was also modified to include additional A-zone groundwater monitoring wells (C13-GW1R, C13-GW3, C13-GW12A, C13-GW14A, C13-GW15A, C13-GW17A, C13-GW21A, C13-GW22A, C13-GW-23A, and C13-GW26A) surrounding the ozone injection area. In addition, C13-GW3, C13-GW12A, and C13-GW15A, which were previously utilized as the monitoring wells for the BIOX<sup>®</sup> over-spray, were also included in the monitoring program for the ozone injection activities.

The pilot ozone injection was performed in the summer of 2011 and followed by groundwater monitoring and reporting per the subject MRP CI-9579. The analytical data were reported in the quarterly groundwater monitoring reports and submitted to the Regional Board and to the lead agency Department of Toxic Substances Control (DTSC).

Groundwater monitoring results from June 2011 through November 2012 indicated that concentrations of the following analytes have stabilized over the five quarters following the injection event: 1,4-dioxane,

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

cations, manganese, biological oxygen demand (BOD), bicarbonate and carbonate, fluoride, ferrous iron, heterotrophic bacterial count (HBC), color, hardness, total organic carbon (TOC), and chemical oxygen demand (COD). As a result of this progress, on December 26, 2012, LAUSD requested that the current MRP be modified to reduce the scope of the groundwater monitoring. The request included a reduction in the analytical suite to remove the following analytes: 1,4-dioxane, cations, manganese, BOD, bicarbonate and carbonate, fluoride, ferrous iron, HBC, color, hardness, TOC, and COD. Additionally, it was requested that the previous two sets of groundwater monitoring wells listed in the current MRP be combined and all other existing site wells added to create one site-wide set of wells for future monitoring, all to be monitored for the same analytical suite. DTSC has approved the proposed changes on December 11, 2012. After reviewing the submitted monitoring results, Regional Board staff concurs with the request.

The revised Monitoring and Reporting Program, which incorporates the requested modifications, is enclosed.

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports and correspondence required under the MRP, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100001770. ESI training video is available at:

<https://waterboards.webex.com/waterboards/ldr.php?AT=pb&SP=MC&rID=44145287&rKey=7dad4352c990334b>

Please see Paperless Office Notice for GeoTracker Users, dated December 12, 2011 at:

<http://www.waterboards.ca.gov/losangeles/resources/Paperless/Paperless%20Office%20for%20GT%20Users.pdf>

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general permit in a separate letter if your facility is connected to a sewer and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1.

If you have any additional questions, please contact the Project Manager, Mr. David Koo at (213) 620-6155 ([dkoo@waterboards.ca.gov](mailto:dkoo@waterboards.ca.gov)) or the Unit Chief, Dr. Eric Wu at (213) 576-6683 ([ewu@waterboards.ca.gov](mailto:ewu@waterboards.ca.gov)).

Sincerely,



Samuel Unger, P.E.  
Executive Officer

Mr. Ed Morelan  
Los Angeles Unified School District  
Office of Environmental Health and Safety

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February 8, 2013

Enclosure: Monitoring and Reporting Program No. CI-9579 revised on February 8, 2013

cc: Mr. Patrick Nejadian, Department of Public Health, County of Los Angeles  
Mr. Amit Pathak, Department of Toxic Substances Control, Cypress  
Mr. Anthony Lizzi, Los Angeles Unified School District, Office of Environmental  
Health and Safety  
Mr. Mehdi Bettahar, Parsons

STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

REVISED MONITORING AND REPORTING PROGRAM NO. CI-9579  
FOR

CARSON-GORE ACADEMY OF ENVIRONMENTAL STUDIES  
(FORMERLY CENTRAL REGION ELEMENTARY SCHOOL #13)  
FOR LOS ANGELES UNIFIED SCHOOL DISTRICT  
3200 WEST WASHINGTON BOULEVARD  
LOS ANGELES, CALIFORNIA 90018

(GROUNDWATER REMEDIATION  
USING *IN-SITU* CHEMICAL OXIDATION)  
FILE NO. 09-192, DTSC NO. 304490

ORDER NO. R4-2007-0019  
SERIES NO. 119

I. REPORTING REQUIREMENTS

- A. Los Angeles Unified School District (hereinafter Discharger) shall implement this revised monitoring program on the effective date (February 8, 2013) of Regional Board Order No. R4-2007-0019. The Quarterly Groundwater Remediation Progress and Discharge Monitoring Report for the First Quarter 2013 shall be received at the Regional Board by **April 15, 2013**. Subsequent reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

- B. If there is no discharge or injection during any reporting period, the report shall so state.
- C. By March 1<sup>st</sup> of each year, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall explain the compliance record and the corrective actions taken, or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements (WDRs).

4<sup>th</sup> Revision February 8, 2013  
3<sup>rd</sup> Revision August 7, 2012  
2<sup>nd</sup> Revision August 5, 2011  
1<sup>st</sup> Revision October 14, 2010  
March 14, 2010

- D. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.
- E. The method limits (MLs) employed for groundwater analyses shall be lower than the limits for the permit analytical methods established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.
- F. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- G. Each monitoring report must affirm in writing that “All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program.” Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- H. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all exclusions of effluent limitations.
- I. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- J. If the Discharger performs analyses on any groundwater samples more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the report.
- K. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.

II. IN-SITU CHEMICAL OXIDATION (ISCO) PILOT TEST MONITORING REQUIREMENT

Monitoring shall be conducted on a quarterly basis to continue to evaluate the effectiveness of the pilot test implemented in 2011. The pilot test consisted of groundwater remediation via injection of gaseous ozone into A1-zone and A-zone groundwater underlying Areas B1 and B2 of the site. A report shall be submitted quarterly documenting the results of the post-injection monitoring. The reports must include the results of baseline parameters in groundwater prior to the application of ozone. The quarterly reports are due according to the schedule listed in Section IA.

The report(s) shall contain the following information regarding the pilot test activities:

1. Map showing the location(s) of the injection area.
2. A thorough summary of the quantities of ozone injection. Include injection dates, total estimated area of influence, ozone concentrations, and total ozone injected (in pounds).
3. Interpretation of the results and evaluation of the pilot test effectiveness.

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. Quarterly sampling will occur until the WDR permit for the site is terminated. Groundwater samples shall be collected from the groundwater monitoring wells from all existing site wells as described in Table 1 (refer to Figure 1):

**Table 1. Site Wells**

<b>Well ID</b>	<b>Groundwater Zone</b>
C13-CL2AR	A
C13-CL2BR	B
C13-CL3BR	B
C13-CL4A1R	A1
C13-CL6A1R	A1
C13-CL6BR	B
C13-CL7B	B
C13-GW10A	A
C13-GW11A1R	A1
C13-GW11AR	A
C13-GW12A	A
C13-GW12A1	A1
C13-GW12B	B
C13-GW13A	A
C13-GW14A	A
C13-GW15A	A
C13-GW16A1R	A1
C13-GW17A	A
C13-GW18A	A
C13-GW19B	B
C13-GW1R	A
C13-GW20A1	A1
C13-GW21A	A
C13-GW22A	A
C13-GW22A1	A1
C13-GW23A	A
C13-GW23A1	A1
C13-GW24A	A
C13-GW25A	A
C13-GW26A	A
C13-GW3	A
C13-GW8B	B

Groundwater from the groundwater monitoring wells listed in Table 1 above shall be monitored for the duration of the WDR permit at the frequencies indicated above in accordance with the following monitoring program:

**Table 2. Monitoring Program**

CONSTITUENT	METHOD	TYPE OF SAMPLE	UNITS
Volatile Organic Compounds	EPA Method 8260B or equivalent	Grab (or low flow sampling when feasible)	µg/L
Total Petroleum Hydrocarbons	EPA Method 8015M or equivalent	Grab (or low flow sampling when feasible)	µg/L
Dissolved California Assessment Manual (CAM) metals, total iron and boron	EPA Method 6010B/7400 or equivalent	Grab (or low flow sampling when feasible)	µg/L
Hexavalent Chromium	EPA Method 7199 or equivalent	Grab (or low flow sampling when feasible)	µg/L
Anions (bromide, chloride, bromate, nitrate, nitrite, phosphate, and sulfate)	EPA Method 300.1/300 or equivalent	Grab (or low flow sampling when feasible)	µg/L
Total Suspended Solids	EPA Method 2540D or equivalent	Grab (or low flow sampling when feasible)	mg/L
Total Dissolved Solids	EPA Method 2540C or equivalent	Grab (or low flow sampling when feasible)	mg/L
pH	N/A	In-situ	pH units
Specific Conductivity	N/A	In-situ	µmhos
Oxidation - Reduction Potential	N/A	In-situ	mV
Dissolved Oxygen	N/A	In-situ	mg/L
Temperature	N/A	In-situ	°F/°C
Turbidity	N/A	In-situ	NTU
Free product	N/A	In-situ	ft
Groundwater elevation	N/A	In-situ	ft

All groundwater monitoring reports must include, at a minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and



groundwater flow direction.

IV. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted to a less frequent basis or parameters may be modified by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the \_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)"

VI. PUBLIC DOCUMENTS

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

VII. ELECTRONIC SUBMITTAL OF INFORMATION (ESI) TO GEOTRACKER

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data, discharge location data, correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100001770.

Carson-Gore Academy of Environmental Studies  
(Formerly Central Region Elementary School #13)  
WDR Order No. R4-2007-0019  
Monitoring and Reporting Program No. CI-9579

All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by: Samuel Unger  
Samuel Unger, P.E.  
Executive Officer

Date: February 8, 2013

